

In the Drawings:

The attached sheets of drawings includes changes to FIG. 4. This sheet, which includes FIG. 4, replaces the original sheet including FIG. 4.

Attachment: Replacement Sheet 3/3 including FIG. 4.

REMARKS

Reconsideration of this Application is respectfully requested. Upon entry of the foregoing amendments, claims 1-18 are pending in the application, with claims 1 and 9 being the independent claims. Support for the subject matter of the amended claims is contained in the application as originally filed. For example, support for the amendment to claim 11 may be found on pages 15 and 16. Because the foregoing changes introduce no new matter, their entry is respectfully requested.

Based on the above Amendment and the following Remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Objections to the Claims

The Examiner has made objections to claims 6 and 11. Applicants respectfully submit that the objections to claims 6 and 11 are overcome by the accompanying amendment thereto.

Applicants note that claim 11 has been amended to emphasize that the fluidic sensors may be configured such that they always exhibit the same temperature, that is, they are maintained at the same temperature. For example, the fluidic resistors may be placed or arranged close to one another, and/or may be placed or arranged within the same housing, and/or be placed or arranged on the same support member. One will appreciate that there are a number of ways to hold both fluidic resistors (7, 9) at temperatures substantially constant with one another.

Applicants thank the Examiner for renumbering the claims.

Objections to the Drawings

The Examiner has made an objection to FIG. 4 as the figure includes a non-English language caption. Applicants respectfully submit that the Examiner's objection has been overcome by the accompanying amendment thereto. Namely, the non-English language caption has been replaced with the translated legend "Prior Art".

Rejections under 35 U.S.C. § 103***Claims 1-7, 9, 10-14 and 16-18***

The Examiner has rejected claims 1-7, 9, 10-14 and 16-18 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,627,075 B1 to Weissgerber (“Weissgerber”) and International Publication No. WO 03/066264 A to Gosger (“Gosger”). Weissgerber and Gosger, taken individually or combined, fail to teach or suggest the methods of the present invention called for by independent claims 1 and 9.

Applicants note that the Weissgerber ‘075 patent is the equivalent of DE 199 14 358, which is discussed in the application as originally filed (*see* paragraph bridging pages 3 and 4). As noted therein, Weissgerber “uses a working sensor design to measure the flow in the working branch. Since the sensitivity of flow sensors for such small volume flows is usually strongly dependent on the solvent that is being used, this principle cannot be easily applied to solvent gradients.” *See* application, page 3, line 25, to page 4, line 2.

In contrast, the present invention seeks to provide a method for supplying a defined fluid flow making it possible to generate the work flow with high accuracy independently of the counter pressure at the output without requiring a working sensor in the working branch to detect the pressure and/or the flow. Instead, the present invention utilizes a flow sensor (108) in a cross-branch, and optionally a pressure sensor (114) in the excess branch. *See*, e.g., FIG. 1.

Applicants respectfully submit that one would not modify the device and process of Weissgerber in light of the teachings of Gosger. Assuming arguendo that Gosger discloses a measuring bridge using fluidic resistors, Applicants respectfully submit that a person skilled in the art would not modify Weissgerber in light of Gosger because they are nonanalogous art. *See* M.P.E.P. § 2141.01(a).

The main reason is that Gosger is directed to a method and device for machining a determined flow resistance of a flow channel. Gosger is silent of any teachings as to how a fluidic bridge could be used in order to provide a method or device to supply a defined fluid flow, much less HPLC fluid flow. The whole content of Gosger is directed to the technical

problem of changing the fluidic resistance of a flow channel which forms resistor 1 in a bridge (*see, e.g.*, Gosger, FIG. 1) until the bridge has reached a specified set point, in particular until the balanced condition of the measuring bridge is reached. *See* Gosger, paragraph [0055]. The alteration of the flow channel, for example a nozzle, may be achieved by plating the inner wall of the nozzle.

Thus, Gosger is nonanalogous art as it concerns a completely different technical problem than the present invention. The presently claimed invention (*see, e.g.*, independent claim 1) is directed to a method for providing an exactly defined fluid flow which is kept constant even if the fluidic resistance (*e.g.*, that of the column) changes due to undesired effects.

Thus, Applicants respectfully submit that one concerned with improving capillary tube-HPLC or nano-HPLC devices would not look to Gosger to replace the pressure sensors of Weissgerber (Fig. 3) by a flow sensor which is disclosed by Gosger as the measuring bridge of Gosger is concerned with a completely art, namely machining of flow channels.

With reference to claim 1, Applicants note that the claim concerns the advantageous use of a balance flow equal to a preset offset value (*i.e.*, set point). In particular, claim 1 calls for, *inter alia*,

g) where by control of the resistance value of the adjustable fluidic resistance device (110) the balance flow (f_{bal}) is regulated in such manner that the balance flow (f_{bal}) is in the temporal median, generally equal to zero or equal to a preset offset value, whose value is small in comparison to the internal work flow (f_{iw}).

See claim 1, clause g. Applicants respectfully submit that assuming arguendo that Gosger discloses the use of a specified set point, Gosger is completely silent about the range in which the specified set point should lie and is also silent about possible advantages of using a set point which is different from the balanced condition of the measuring bridge. As such, even if one were to modify Weissgerber as the Examiner suggests, one still would not arrive at the present invention. As explained in the present application, especially with respect to Fig. 3, the use of a

set point in which the balance flow is in the temporal median, equal to a pre-set off set value, whose value is small in comparison with the internal work flow, has considerable advantages.

For at least these reasons, Applicants respectfully submit that Weissgerber and Gosger, taken individually or combined, do not render obvious independent claim 1 and 9. Applicant submits that claims 2-7, 10-14 and 16-18, which depend from claim 1 and 9, are allowable over the cited art for at least the same reasons noted above.

Allowable Subject Matter

Applicants thank the Examiner for indicating that claim 8 and 15 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

CONCLUSION

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided below.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extension of time or additional claims, and/or credit any overpayment to Deposit Account No. 50-0310 (Order No. 067407-5043-US).

PATENT

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Prompt and favorable consideration of this Amendment and Response is respectfully requested.

Respectfully submitted,

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